WHAT IS CLAIMED IS:

1. A method for interleaving blocks of data, comprising:

partitioning an input bitstream into at least two bitstreams;

interleaving the at least two bitstreams to produce a first bitstream, corresponding bits of each of the at least two bitstreams being alternately placed in the first bitstream; and

partitioning the first bitstream into at least two different bitstreams, a predetermined number of consecutive bits in the first bitstream being partitioned into each of the at least two different bitstreams.

2. The method of Claim 1, wherein interleaving the at least two bitstreams comprises:

if the number of the at least two bitstreams is between 2^n and 2^{n+1}, where n is an integer, interleaving 2^n of the at least two bitstreams to produce the first bitstream, corresponding bits of each of the 2^n bitstreams being alternatively placed in the first bitstream; and

setting aside a remaining of the at least two bitstreams.

3. The method of Claim 1, wherein interleaving the at least two bitstreams comprises:

if the number of the at least two bitstreams is between 2^n and 2^{n+1}, where n is an integer, creating bitstreams containing zeros, so that the number of the at least two bitstreams is 2^{n+1}; and

interleaving the 2^{n+1} bitstreams to produce the first bitstream, corresponding bits of each of the 2^{n+1} bitstreams being alternately placed in the first bitstream.

4. The method of Claim 1, wherein interleaving the at least two bitstreams comprises:

(a) interleaving the i-th and $(i+\frac{n}{2})$-th of the at least two bitstreams to produce corresponding intermediate 2nd bitstreams, numbered i, for $0 \le i \le \frac{n}{2}-1$, where n is the number of at least two bitstreams;

(b) interleaving the i-th and $(i+\frac{n}{2^j})$-th of the intermediate j-th bitstreams to produce corresponding intermediate (j+1)-th bitstreams, numbered i, where $0 \le i \le \frac{n}{2^j}-1, 2 \le j \le \log_2 n$; and

(c) repeating (b) for $j \le \log_2 n$ to produce the first bitstream.

5. The method of Claim 2, wherein partitioning the first bitstream comprises:

transposing the remaining of the at least two bitstreams; and

appending the transposed remaining bitstreams onto the at least two different bitstreams.

6. The method of claim 3, wherein partitioning the first bitstream comprises:

removing bits of zeros, added by the bitstreams containing zeros, from the at least two different bitstreams.

7. A method for interleaving blocks of data, comprising:

partitioning an input bitstream into at least two bitstreams;

interleaving the at least two bitstreams to produce a first bitstream, corresponding bits of each of the at least two bitstreams being alternately placed in the first bitstream;

partitioning the first bitstream into at least two different bitstreams, a predetermined number of consecutive bits in the first bitstream being partitioned into each of the at least two different bitstreams; and

when the data exceed a predetermined bitrate, iteratively, shuffling consecutive bits in adjacent different bitstreams into a more or less significant bit position.

8. The method of Claim 7, wherein interleaving the at least two bitstreams comprises:

if the number of the at least two bitstreams is between 2^n and 2^{n+1}, where n is an integer, interleaving 2^n of the at least two bitstreams to produce the first bitstream, corresponding bits of each of the 2^n bitstreams being alternately placed in the first bitstream; and

setting aside a remaining of the at least two bitstreams.

9. The method of Claim 7, wherein interleaving the at least two bitstreams comprises:

if the number of the at least two bitstreams is between 2^n and 2^{n+1}, where n is an integer, creating bitstreams containing zeros, so that the number of the at least two bitstreams is 2^{n+1}; and

interleaving the 2^{n+1} bitstreams to produce the first bitstream, corresponding bits of each of the 2^{n+1} bitstreams being alternately placed in the first bitstream.

10. The method of Claim 7, wherein interleaving the at least two bitstreams comprises:

(a) interleaving the i-th and $(i+\frac{n}{2})$-th of the at least two bitstreams to produce corresponding intermediate 2nd bitstreams, numbered i for $0 \le i \le \frac{n}{2}-1$, where n is the number of at least two bitstreams;

(b) interleaving the i-th and $(i+\frac{n}{2^j})$-th of the intermediate j-th bitstreams to produce corresponding intermediate (j+1)-th bitstreams, numbered i, for $0 \le i \le \frac{n}{2^j}-1, 2 \le j \le \log_2 n$; and

(c) repeating (b) for $j \le \log_2 n$ to produce the first bitstream.

11. The method of Claim 8, wherein partitioning the first bitstream comprises:

transposing the remaining of the at least two bitstreams; and

appending the transposed remaining bitstreams onto the at least two different bitstreams.

12. The method of claim 9, wherein partitioning the first bitstream comprises:

removing bits of zeros, added by the bitstreams containing zeros, from the at least two different bitstreams.

13. The method of Claim 7, wherein shuffling the consecutive bits comprises:

dividing the one of the different bitstreams into groups, each group including a predetermined number of consecutive bits; and

rotating the bits within each of the groups a predefined number of positions left or right.

14. A system for interleaving blocks of data, comprising:

a memory device, having embodied therein the data; and

a processor in communication with the memory device, the processor configured to

partition an input bitstream into at least two bitstreams,

interleave the at least two bitstreams of the data to produce a first bitstream, corresponding bits of each of the at least two bitstreams being alternately placed in the first bitstream,

partition the first bitstream into at least two different bitstreams, a predetermined number of consecutive bits in the first bitstream being partitioned into each of the different bitstreams, and

when the data exceed a predetermined bitrate, iteratively, shuffle consecutive bits in adjacent different bitstreams into a more or less significant bit position.

15. The system of Claim 14, the processor further configured to:

if the number of the at least two bitstreams of the at least two bitstreams is between 2^n and 2^{n+1}, where n is an integer, interleave 2^n of the at least two bitstreams to produce the first bitstream, corresponding bits of each of the 2^n bitstreams being alternately placed in the first bitstream; and

set aside a remaining of the at least two bitstreams.

16. The system of Claim 14, the processor further configured to:

if the number of the at least two bitstreams of the at least two bitstreams is between 2^n and 2^{n+1}, where n is an integer, create bitstreams containing zeros, so that the number of the at least two bitstreams is 2^{n+1}; and

interleave the 2^{n+1} bitstreams to produce the first bitstream, corresponding bits of each of the 2^{n+1} bitstreams being alternately placed in the first bitstream.

17. The system of Claim 14, the processor further configured to:

(a) interleave the i-th and $(i+\frac{n}{2})$-th of the at least two bitstreams to produce corresponding intermediate 2nd bitstreams, numbered i for $0 \le i \le \frac{n}{2}-1$, where n is the number of at least two bitstreams;

(b) interleave the i-th and $(i+\frac{n}{2^j})$-th of the intermediate j-th bitstreams to produce corresponding intermediate (j+1)-th bitstreams, numbered i, for $0 \le i \le \frac{n}{2^j}-1, 2 \le j \le \log_2 n$; and

(c) repeat (b) for $j \le \log_2 n$ to produce the first bitstream.

18. The system of Claim 16, the processor further configured to:

transpose the remaining of the at least two bitstreams; and

append the transposed remaining bitstreams onto the at least two different bitstreams.

19. The system of Claim 17, the processor further configured to:

remove bits of zeros, added by the bitstreams containing zeros, from the at least two different bitstreams.

20. The system of Claim 14, the processor further configured to:

divide the one of the different bitstreams into groups, each group including a predetermined number of consecutive bits; and

rotate the bits within each of the groups a predefined number of positions left or right.

21. A machine readable medium containing program instructions for execution on a processor, which when executed by the processor, cause the processor to perform:

partitioning an input bitstream into at least two bitstreams;

interleaving the at least two bitstreams of the data to produce a first bitstream, corresponding bits of each of the at least two bitstreams being alternately placed in the first bitstream;

partitioning the first bitstream into at least two different bitstreams, a predetermined number of consecutive bits in the first bitstream being partitioned into each of the different bitstreams; and

when the data exceed a predetermined bitrate, iteratively, shuffling consecutive bits in adjacent different bitstreams into a more or less significant bit position.

22. The machine readable medium of Claim 21, interleaving the at least two bitstreams further comprising:

(a) interleaving the i-th and $(i+\frac{n}{2})$-th of the at least two bitstreams to produce corresponding intermediate 2nd bitstreams, numbered i for $0 \le i \le \frac{n}{2}-1$, where n is the number of at least two bitstreams;

(b) interleaving the i-th and $(i+\frac{n}{2^j})$-th of the intermediate j-th bitstreams to produce corresponding intermediate (j+1)-th bitstreams, numbered i, for $0 \le i \le \frac{n}{2^j}-1, 2 \le j \le \log_2 n$; and

(c) repeating (b) for $j \le \log_2 n$ to produce the first bitstream.

23. The machine readable medium of Claim 21, shuffling the consecutive bits further comprising:

dividing the one of the different bitstreams into groups, each group including a predetermined number of consecutive bits; and

rotating the bits within each of the groups a predefined number of positions left or right.